503 Chen-chiang the canal is shallower.[8]

133 In the area between the Yellow River and the Yangtze River, the Hwai River is the main [311] source of irrigation. The Hwai River receives water from about a dozen radiating tributaries but, curiously, has no outlet to the sea. Since 1853, when the last change in the course of the Yellow River usurped the Hwai's channel and dammed the river's flow with silt, the Hwai has emptied into land-locked Hung-tse Lake. Because the lake was gradually filling up with silt, the water during a flood ran overland and inundated thousands of acres in the vicinity.[9]

503 The North Kiangsu Main Irrigation Canal, completed by the Peking regime, helps to reliev the Hwai of its high water pressure during the flood season. On the upper reaches of the Hwai a total of sixteen reservoirs are being built to divert flood water.

133 The Yangtze River flows into this region from the west. Its width is restricted to 1 kilometer (3,280 ft.) by the Huo-shan Range as far as Chiang-yin, where it widens to over 4 kilometers (3 mi.). The entire stretch of the

8. Ch'u, Shao-t'ang, op. cit., p. 74.

9. In the 1950 flood, over 40 million mou of land were submerged; 13 million people were affected. Cf. Cheh Shin-chien, op. cit., p. 53.

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1:Stanford U. S.4, 5 1956 AF15 East China AF15

Table I. Cultivated Land and Rural Population of East China*

(S = Shih-mou)
(Unit: 1,000 A = Acres)

Province	1946					1955				
	Cultivated Land	Rural Population	Farm Households	Shih-mou per Household	Shih-mou per Capita	Cultivated Land	Rural Population	Farm Households	Shih-mou per Household	Shih-mou per Capita
Kiangsu	85,196S (13,616A)	25,080	5,057	16.87 (2.61A)	3.40 (0.57A)	110,296S (18,383A)	38,477	7,096	15.54 (2.59A)	3.11 (0.52A)
Chekiang	41,658S (6,949A)	14,020	3,165	13.16 (2.19A)	2.97 (0.49A)	55,655S (9,276A)	19,665	3,933	14.15 (2.36A)	2.83 (0.47A)
Anhwei	73,128S (12,188A)	15,182	2,682	27.27 (4.54A)	4.82 (0.80A)	93,028S (15,505A)	26,096	5,219	17.82 (2.97A)	3.56 (0.59A)
Shantung	100,480S (16,748A)	33,024	5,918	16.97 (2.83A)	3.04 (0.51A)	100,665S (16,777A)	42,034	8,407	11.97 (2.00A)	2.39 (0.40A)
Fukien	21,094S (3,516A)	7,202	1,626	12.97 (2.16A)	2.93 (0.49A)	23,704S (3,967A)	11,303	2,261	10.21 (1.70A)	2.04 (0.34A)
Total (or Average)	321,626S (53,604A)	94,508	18,448	17.43 (2.91A)	3.43 (0.57A)	382,851S (63,808A)	134,575	26,916	14.22 (2.37A)	2.84 (0.47A)

*1946 statistical figures are based on Chung-hua Min-kuo T'ung-chi Nien-chien 1948 [The Statistical Year Book of China], Nanking, Bureau of Statistics, 1948, pp. 70-71. For 1955 data: (1) the rural population figures are from the census of 1953, New China News Agency release of November 1, 1954; (2) the area figures are based on Chung-hua Jen-min Kung-ho-kuo Fen-sheng Ti-t'u [Atlas of the People's Republic of China by Provinces], Shanghai, Ti-t'u ch'u-pan-she, 1955; (3) the farm household figures are based on a report made by Premier Chou En-lai, New China News Agency release of September 24, 1954.

(Table 1 faces p. 739.)

162 calculate the relation of the rural to the urban population by the ratio of 86 to 14, the figure of the rural population amounts to about 135 million, leaving 21 million city dwellers.[2] How the Communists arrived at this arbitrary ratio for rural and urban population had not been explained.

162 311 The average acreage per farm household and per capita is even lower in 1955 than in 1946, because of the increase in rural population. The comparison of these marked changes is shown in shih-mou with equivalent acres given in parentheses in Table 1.

2. Ibid.

311 Note that the average farm in Fukien is only 10.21 shih-mou (1.7 acres), the smallest in this region; while that in Anhwei is 17.82 shih-mou (about 3 acres), the largest.

II. THE LAND-REFORM PROGRAM OF EAST CHINA

423 185 In February 1950, the provincial authorities of East China began preparations for the introduction of "Land Reform." In July 1950 work began on propaganda, the mobilization of the masses, the training of cadres, and the carrying out of exper ements in selected districts. In September 1950 and again in November, conferences were held to examine the result accomplished in the experimental areas.[3]

Since the middle of December 1950, the work of land reform had been developed extensively in the "new liberated areas," and the finishing touches had been put on the "old liberated areas." In April 1951, because of intensification of the "spring cultivation campaign," the Land Reform Movement was suspended for a time. After the summer harvest, the holiday period of the peasants was utilized for the resumption of the "reform" campaign. By the end of September 1951, in both new and old "liberated areas,"

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3. Chieh-fang Jih-pao [Liberation Daily] Shanghai, November 29, 1951.

2: Murphy G-4 (no date) 1953 AF15 East China AF15

FOUR

Location

Shanghai's Hinterland

"The first and most natural root of a great city is the labour and populousness of the adjacent country, which supplies the materials of subsistence, of manufactures, and of foreign trade." [1] Shanghai is a great city primarily because it stands at the apex of the most fertile and populous area of comparable size anywhere in the world, the lower Yangtze basin.

The Yangtze watershed totals 750,000,000 square miles, or half of China proper, and has a population of approximately 200,000,000. The section of the river's basin which we may call the fertile triangle, bounded by Chinkiang, Hangchow, and Shanghai, an area of about 20,000,000 square miles, has an estimated population of 40,000,000, or an overall average of about 2,000 inhabitants per square mile. Nearly 80 per cent of the total land area is cultivated (map 10), and this region stands out as one of the three most widely cultivated in China (the Red Basin of Szechuan and the north China plain being the other two). Nodes of commerce are thickly scattered over the fertile triangle, which contains three cities of over half a million population (Hangchow, Soochow, and Shanghai — map 5). The Yangtze delta supports by far the densest single concentration of population in China for an area of similar size (map 7). The river's course is marked by successive clusters of settlement, terminating westward in the densely peopled Red Basin of Szechuan.

Of the other major cities of the lower Yangtze basin, Hangchow, Soochow, and Nanking were all at one time imperial capitals, and all have remained important commercial and industrial centers. Hangchow and Soochow are still among the three or four leading cities in China in silk reeling and weaving, and both act as central places for the surrounding rice and silk areas of the delta. Nanking

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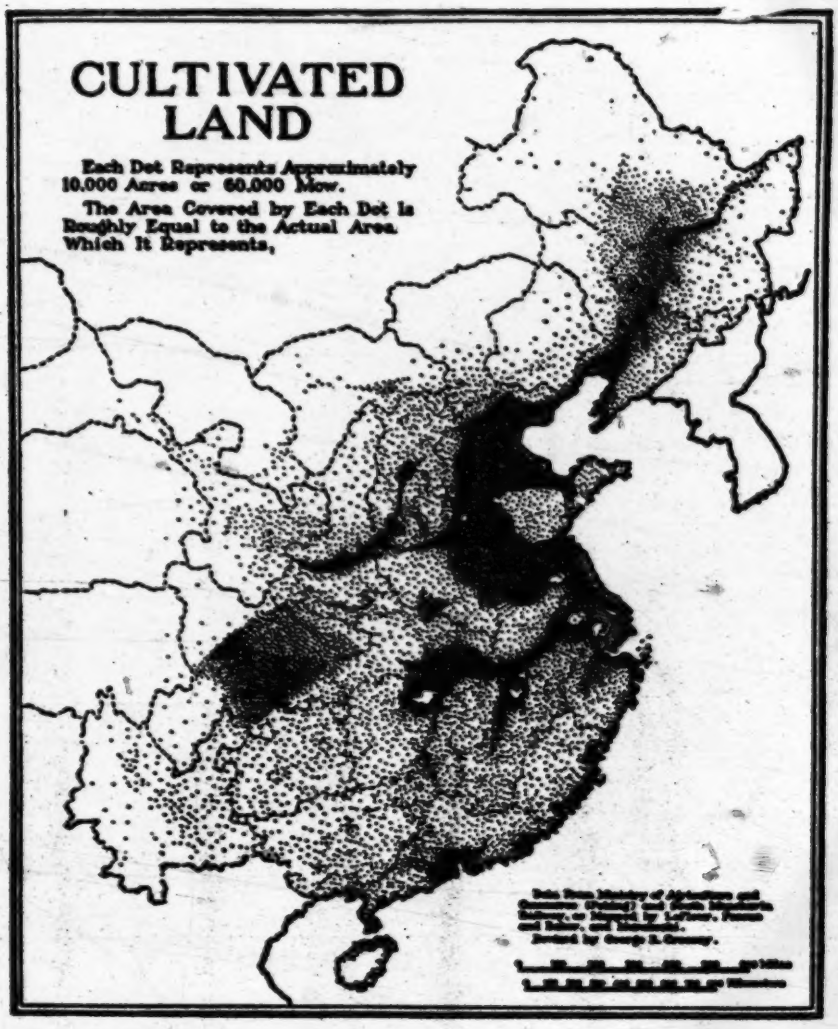
CULTIVATED LAND
Each Dot Represents Approximately 10,000 Acres or 60,000 Mow.
The Area Covered by Each Dot is Roughly Equal to the Actual Area Which It Represents.

Map 10. Distribution of Cultivated Land in China (reproduced here by the courtesy of the McGraw-Hill Book Company, Inc., from G. B. Cressey, *China's Geographic Foundations* [1934]).

[p. 134]

2: Murphy G-4 (no date) 1953 AF15 East China AF15

the areas immediately north and the leaching of the areas immediately south. It shares with most of south China however a soil which has a high clay content and is thus suitable for wet-rice cultivation in paddies. Of equal importance for the soil with the amount, distribution, and nature of the rainfall is the continual renewal of the alluvium by the Yangtze and its tributaries. While in the absence of frequent floods covering the whole of the area this renewal cannot keep pace with the soil exhaustion attendant on 2,000 years of farming, the material which the rivers bring down and deposit is a highly fertile mixture of well-varied origin containing in particular considerable calcium.[1]

Rainfall over the fertile triangle as a whole averages about 43 inches annually, and falls largely in gentle showers. The peak in late April, May, and June is especially favorable to agriculture, coming as it does during the planting season for most crops in this area and continuing through the first important weeks of early growth. These are the so-called plum rains (*pai-yü*), accompanying weak cyclonic storms whose effect is somewhat lessened by the counter influence of the monsoon wind system of east Asia. The growing season is long, averaging 287 days at Shanghai between killing frosts, 291 at Nanking, and 307 at Hangchow.

Relief forms almost no obstacle to cultivation. For the triangle as a whole, about 80 per cent of the total land area is cultivated (eliminating the area covered by lakes), the highest figure for an area of comparable size in China, according to J. L. Buck's figures.* The

* J. L. Buck, *Land Utilization in China* (1937). This is a highly statistical study, whose limitations are obvious in dealing with a largely illiterate peasant society where accurate or complete statistical information is unobtainable. Buck's figures have often been used too literally, but since they are virtually the only ones available on a national basis they may be used to advantage if it is realized that despite their detail they are no more than approximations, arrived at by Western methods whose applicability to the traditional Chinese society is questionable. Their safest use is as estimates of orders of magnitude. Subsequent citations here from Buck's work should be read with these considerations in mind.

Buck's figures have the advantage of considerable regional detail. Since the discussion of food production and marketing here is largely limited to the fertile triangle, Buck's statistics are more readily usable than others gathered or presented on a provincial basis. However, reference should be made to some of these more general studies by Chinese, of agriculture and of rice production, which bear on the problems treated here, and which I have used in a general way in addition

KEY FUNCTIONS

The extensive system of lakes articulated with Tai Lake is by no means lost to agriculture, since most of these bodies of water are shallow enough to permit widespread aquiculture of water chestnuts and lotus (whose roots form an important part of the local diet), as well as supporting a considerable fishing industry on both an exploitative and a farming basis.[2]

Cultivation within the triangle is at least as intensive as in any other part of the world. The growing season allows only one crop of rice, but winter crops of wheat and rape seed harvested in May occupy the rice fields after they are drained following the rice harvest in September-October. Cotton is planted in dry fields at the same time as rice in early May. Broad beans are usually intercultivated with the cotton. West and northwest from Soochow as far as the northern tip of Tai Lake as much as 20 per cent of the cultivated area is devoted to mulberry, but even here rice is dominant, and over the triangle as a whole occupies about 75 per cent of the total crop acreage. Vegetables are grown in small plots by nearly every farmer, and within a day's boat travel of Shanghai (approximately 30 miles) they rank third (after rice and cotton) in total acreage.[3]

Intensive cultivation is decreed by the dense population characteristically associated with deltas in east Asia (the fertile triangle is one of the primary density areas of China), and made possible by the natural fertility of the soil and the ready availability of water. Common usage in the area of the triangle calls for the bodily exchange of soil once in every three years between rice paddies and

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to depending on them at the specific points for which they are cited below. They would include C. C. Chang, Agricultural Statistics (1930), and *China's Food Problem* (1931), Chiang I-shih, Production of Various Cereals (1947), Chao Lien-fang, The Problem of Rice Production (1947) — including estimates from the early 1930's of the amount of cultivated land in rice, by provinces — Chiang Hsüeh-chai, A New Estimate of the Supply and Demand (1936), Feng Hu-fa, Source Materials (1935), Kuo Ming-hsüeh, Chinese Agricultural Resources (1948), Shen Tsung-han, Chinese Food Problems (1947), and *The Agricultural Resources of China* (1951), and T'ang Chi-yu, *An Economic Study of Chinese Agriculture* (1924) — including figures as of 1920 for rice production and cultivated land in the seven leading rice provinces. Wang P'ei-hsün, The Volume of China's Food Imports and Exports (1947), is a brief general discussion of China's foreign trade in food commodities as an introduction to selected statistics from individual ports.